

ABSTRACT

Membrane proteins that are background antigens were solubilized, and transgenic animals were produced using genes encoding these soluble proteins. Antibodies against the 5 background antigen membrane proteins comprised in the immunogens were not found in these transgenic animals, and even when genes encoding soluble proteins were used, immunotolerance against the full-length membrane proteins could be induced. Moreover, by expressing the background antigen membrane proteins as soluble proteins inside the bodies of transgenic animals, unfavorable phenotypes that appear when the full-length membrane proteins are 10 expressed could be avoided, and such animals were made widely available as immunized animals.